BASIS FOR AMENDMENT TO THE CLAIMS

Claim 17 has been amended to describe a process for increasing the decolorizing activity of a layer silicate for the treatment of oils, fats and waxes comprising treating of the layer silicate with an acid-producing microorganism without first adding an acid to that layer silicate, other than acids produced by the microorganism. Basis for this amendment is contained in the last two lines of page 1 of the specification, lines 3 and 4 of page 2 of the specification, the last five lines of the second paragraph of page 7, the first two lines of the last partial paragraph on page 7 and the first two lines on page 8. In addition, in all of the inventive examples on pages 10 - 15, there was no acid added to the raw clay prior to the addition of the acid-producing microorganism. (Examples 3 - 6 and 10 - 11). The pH range of the activated layer silicate of Claim 17 is disclosed on page 7, lines 18 - 21 and Examples 3 - 6, 10 and 11.

No new subject matter is introduced by any of the amendments to this claim.

In addition, the language from Claim 17 which had been objected to as being "new matter" in the previous Office Action, has been deleted.

Further, Claims 43 - 45 have been cancelled.

Discussion

In the earlier Office Action the applicants' claims were first rejected under 35 USC §112 based on an assertion of new matter having been added. The applicants respectfully assert that they have overcome this objection by the deletion of that "alleged" new matter.

The USPTO also rejected a number of claims of the application based on Ryu, et. al. The applicants respectfully assert that this rejection has also been overcome. This reference teaches the treatment of clay material with a microorganism, but only after the clay is first treated with a strong acid to bring its pH down to a level of around 2. See page 47, first Col., lines 4 - 6, "The pH of the MS medium was adjusted to 2.0 with 0.1 N H_2SO_4." See also lines 21 - 24 of the first Col. of page 47, and the last paragraph in the first Col. of page 49. Ryu, et. al. teaches that the clay must first be treated with a strong acid prior to the introduction of the microorganism. The process of the claims, as amended, of the application are distinctive from the process disclosed in Ryu, et. al.

The USPTO also rejected all claims of the application based on U.S. Patent No. 2,813,821 (the "'821 Patent") with four references, one of which was Ryu, et. al. (The applicants adopt all arguments made in the previous amendment filed on March 5, 2004, pages 11 - 18 which discussed these references.)

The applicants specifically assert that the composition taught by the '821 Patent is not a "layer silicate" but rather a "porous material", which is distinctive from the layer silicate of the application. In addition, there is no teaching in the '821 Patent of activating a layer silicate by the use of an acid-producing microorganism without first treating that material with an acid.

With regard to the three other references cited, none teach the use of an acid-producing microorganism to enhance the activation of a layer silicate for the treatment of oils, fats and waxes. In particular, Rutkowski, et. al. teaches that a mineral acid must first be added to the clay. "The method of clay activation (with H2SO4, HCL, and HNO3 of various concns. and/or by calcination) affects the decolorizing power of the earth through the transit pore formation. The most efficient method of activation (leaching by 20% H2SO4, soln. and calcination at 773 °K for 3h)...".

In Chaudhury, et. al. the material is also first treated with a strong acid prior to treatment with a microorganism. (See first paragraph of Col. 2, lines 8 -9 of paragraph 2 of Col. 2, and the second full paragraph of the second Col. of page 211. ("The initial pH of the lixiviant was also varied from 0.5 to 2.0."))

In Kusnierova, et. al. no pH of any material is disclosed. The article merely discusses the effect on a clay mineral of a microorganism. The conclusion of the article was that certain microorganisms biotransformed certain silicates. There was no understanding that this biotransformation would activate the layer

silicate for the treatment of oils, fats and waxes. In fact, there was no understanding of the impact on the soil of the treatment with the microorganisms. A person skilled in the art reviewing this reference would not gain any understanding as to the utilization of an acid-producing microorganism to enhance the ability of a layer silicate to treat oils, fats and waxes.

CONCLUSION

The applicants assert that the Claims of the application are distinctive from the references cited in the Office Action and request an allowance of all claims. If there are any questions concerning this Amendment, please contact applicants' counsel.

Respectfully submitted,

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